

Figure 1. Melting Curves for Genotyping
the Most Stable Mismatch

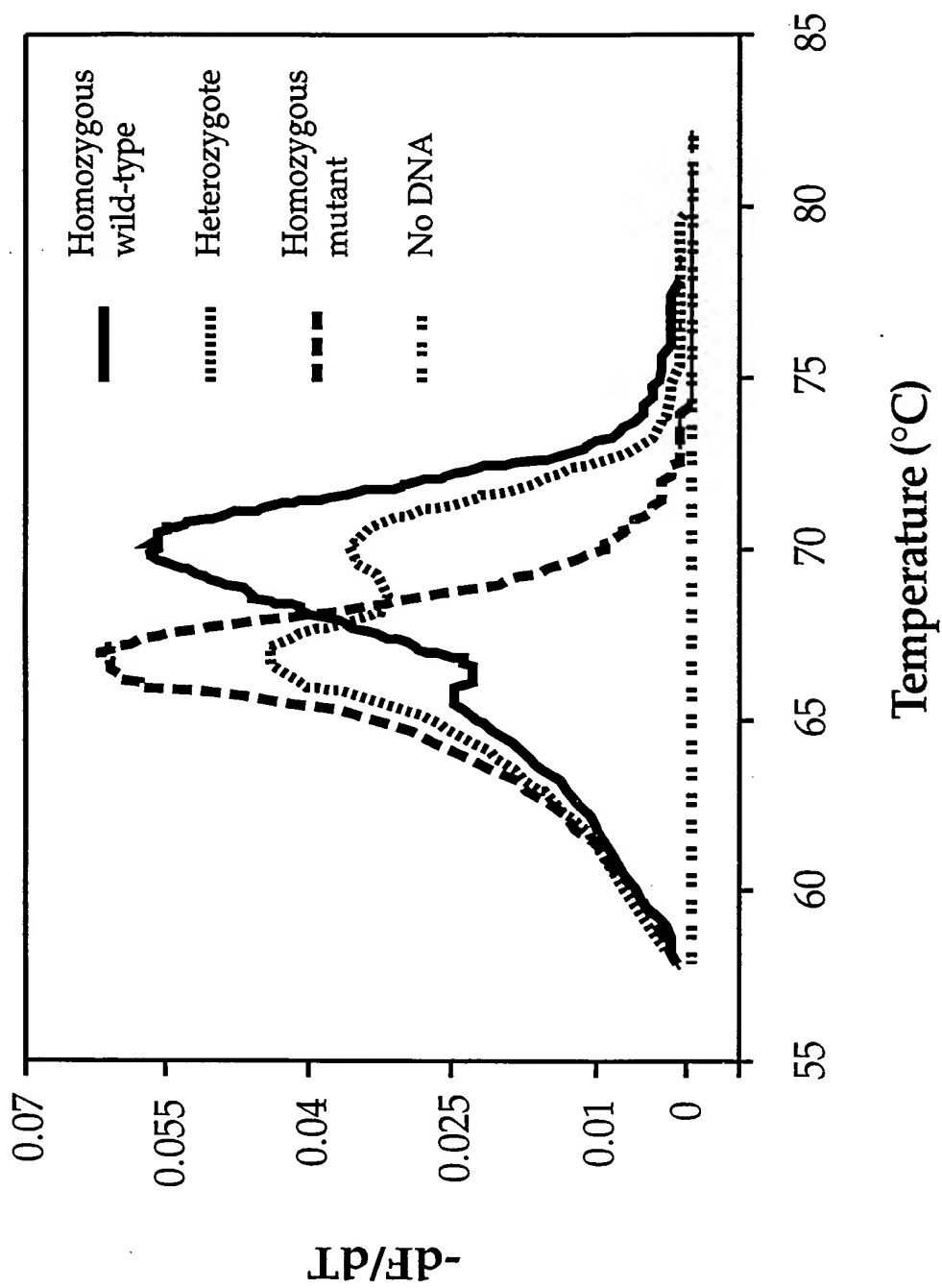


Figure 2. Continuous (within cycle) monitoring of PCR with Hybridization and Exonuclease Probes

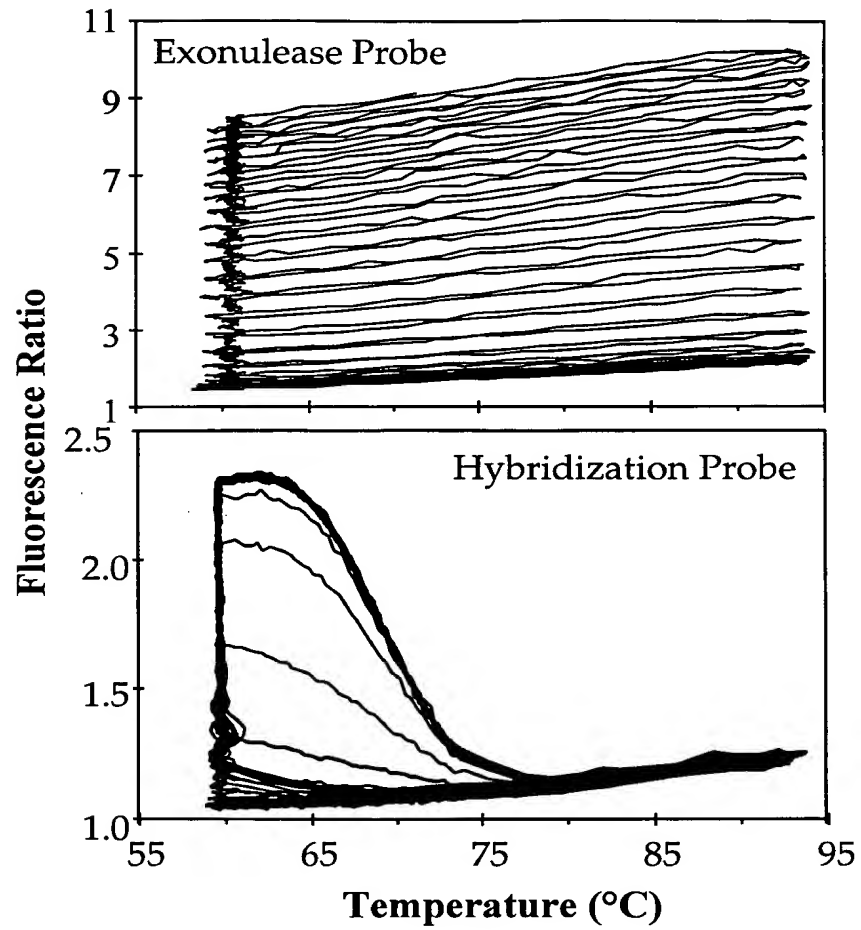
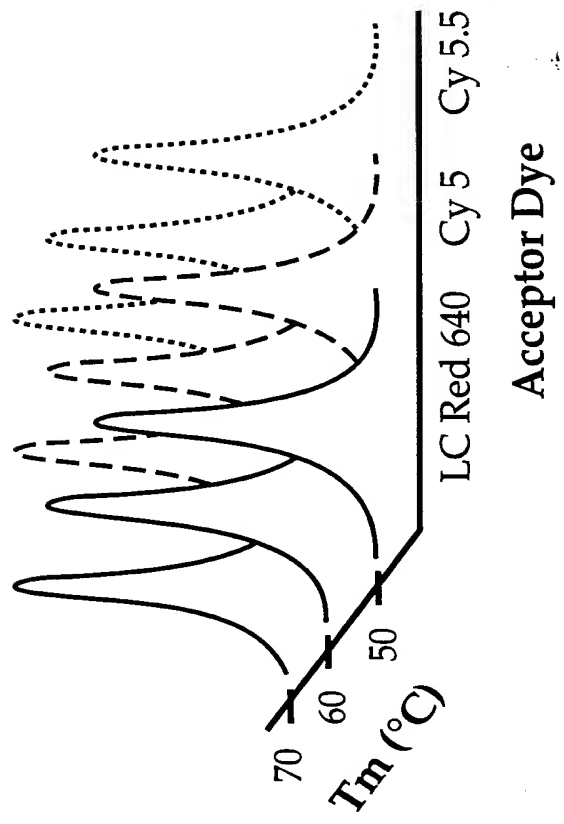


Figure 3. Multiplexing by Color and T_m



A schematic diagram of a microfluidic system. The system is enclosed in a rectangular frame. At the bottom right, an 'Air Inlet' is shown with a large arrow pointing into the system. This leads to a 'Motor' and then an 'Actuator'. The air then flows into a 'Reaction Chamber' located in the center. A 'Fan' is positioned above the reaction chamber, with arrows indicating air circulation. From the reaction chamber, the air flows out through an 'Air Outlet' at the bottom left. The entire system is surrounded by 'Insulation', represented by a thick, shaded border. A 'Halogen Bulb' is positioned above the reaction chamber, connected by a 'Capillary Tube' to a 'Thermocouple' which is in contact with the reaction chamber. A 'Microprocessor' is located at the top right, connected to the thermocouple and the actuator/motor assembly.

Figure 4. The Rapid Cycler™

Figure 5. The Light Cycler™

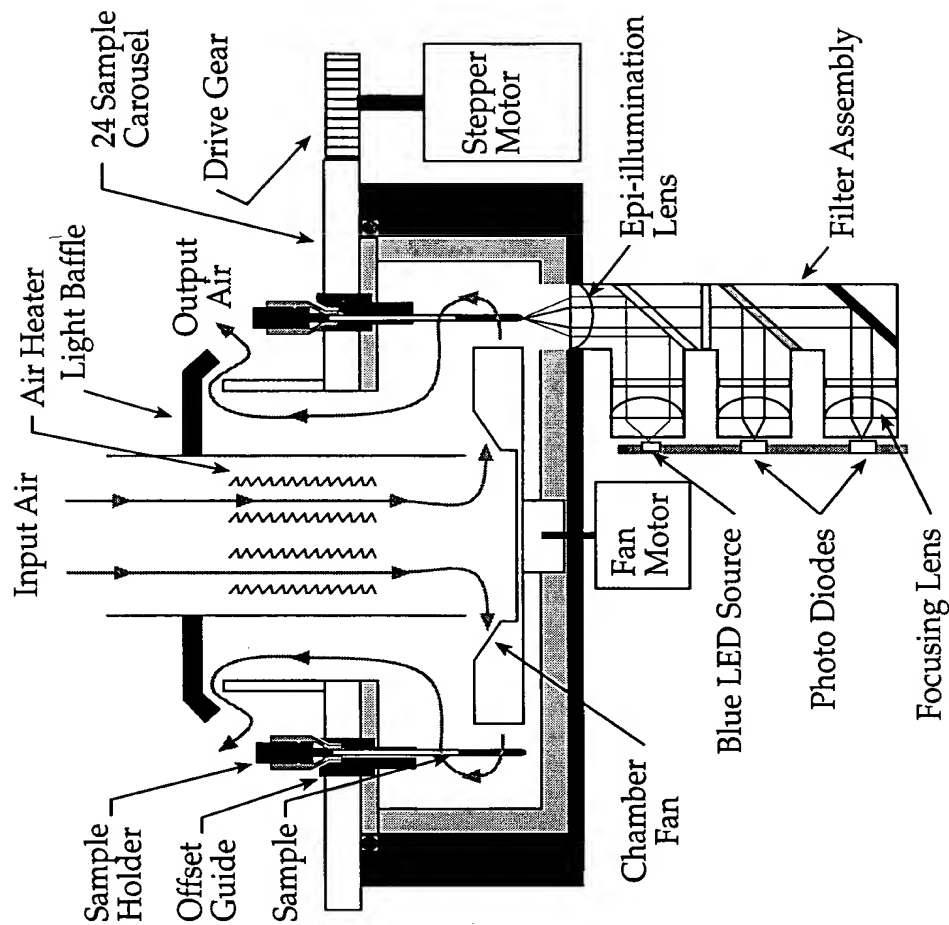


Figure 6. Spectral Overlap between fluorescein, LC Red 640, CY5, Cy5.5

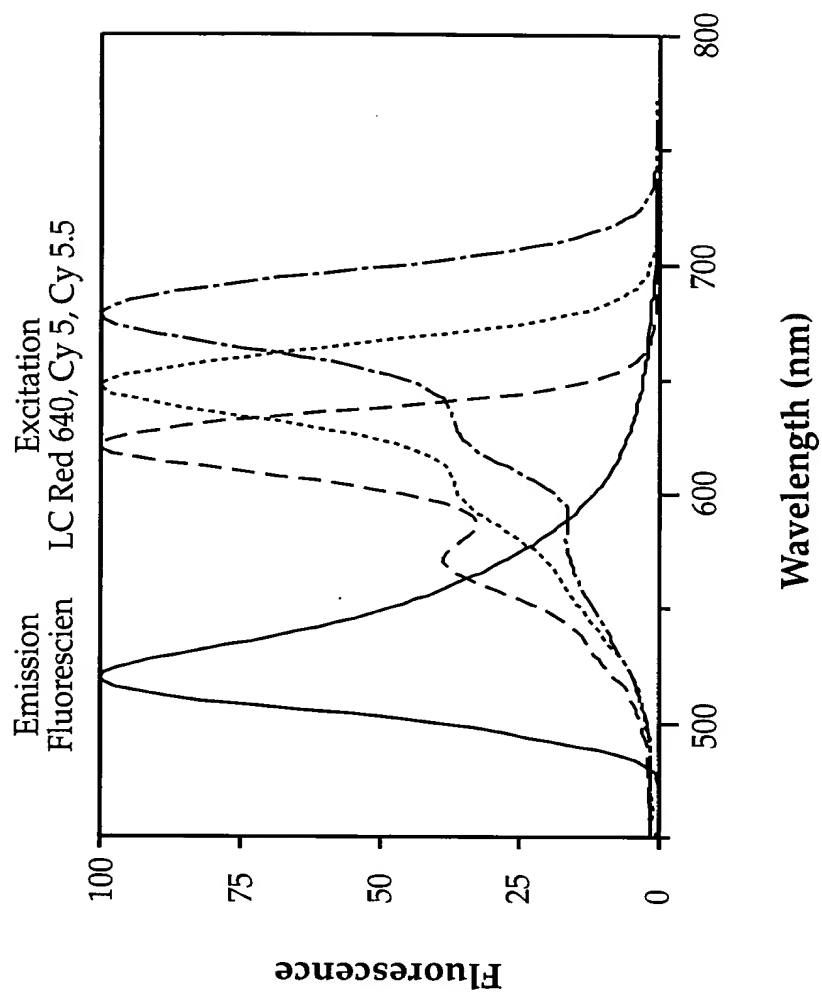
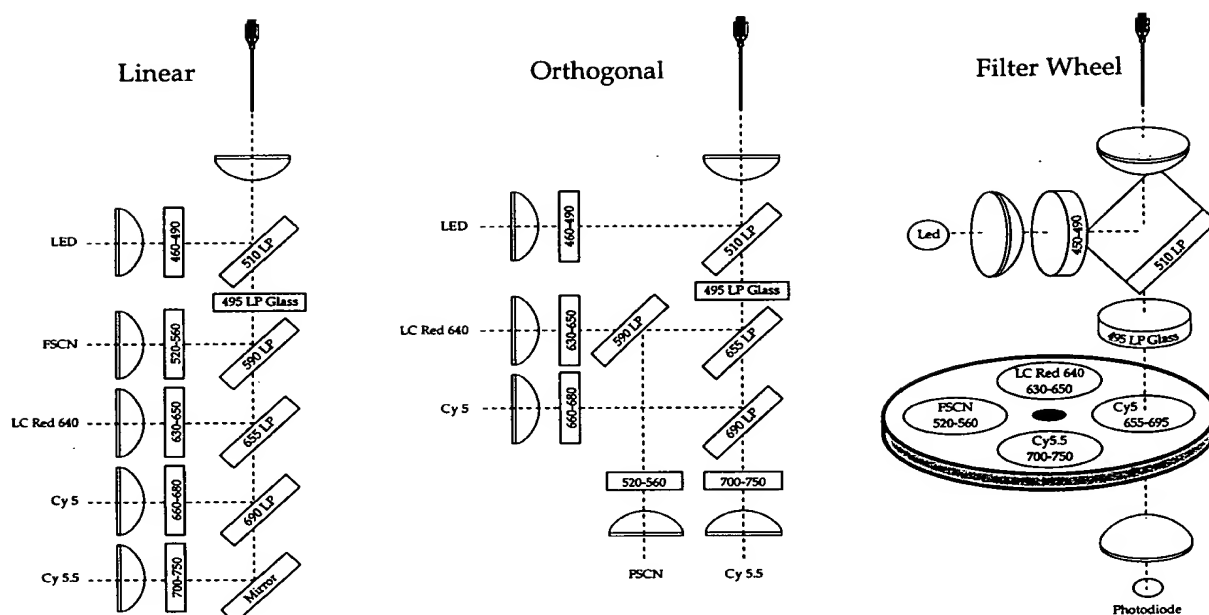


Figure 8. Four Color Light Cycler™ - Optical Design



Percent of Spectra in Band Pass

	FSCN	LC Red 640	Cy 5	Cy 5.5
LED	47	0.8	0.2	0.3
FSCN	48	<0.1	<0.1	<0.1
LC Red 640	1.5	41	7.8	0.8
Cy 5	0.7	14	43	11
Cy 5.5	0.4	7.7	16	49

Figure 9.

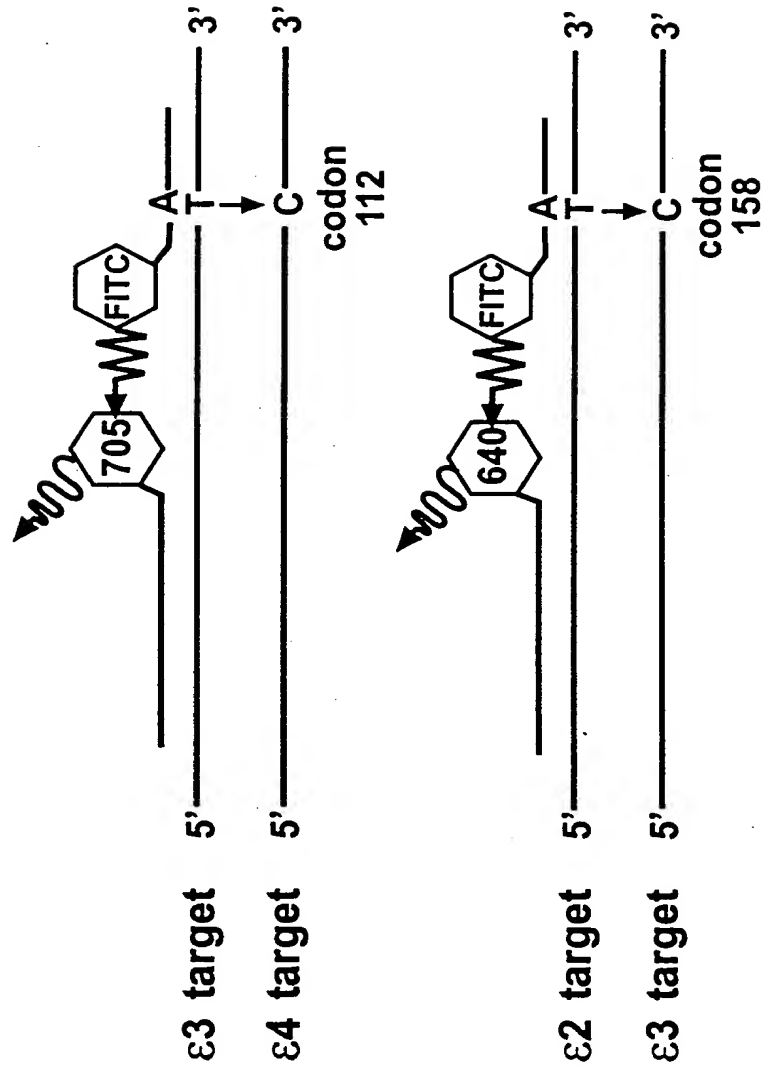


Figure 10.

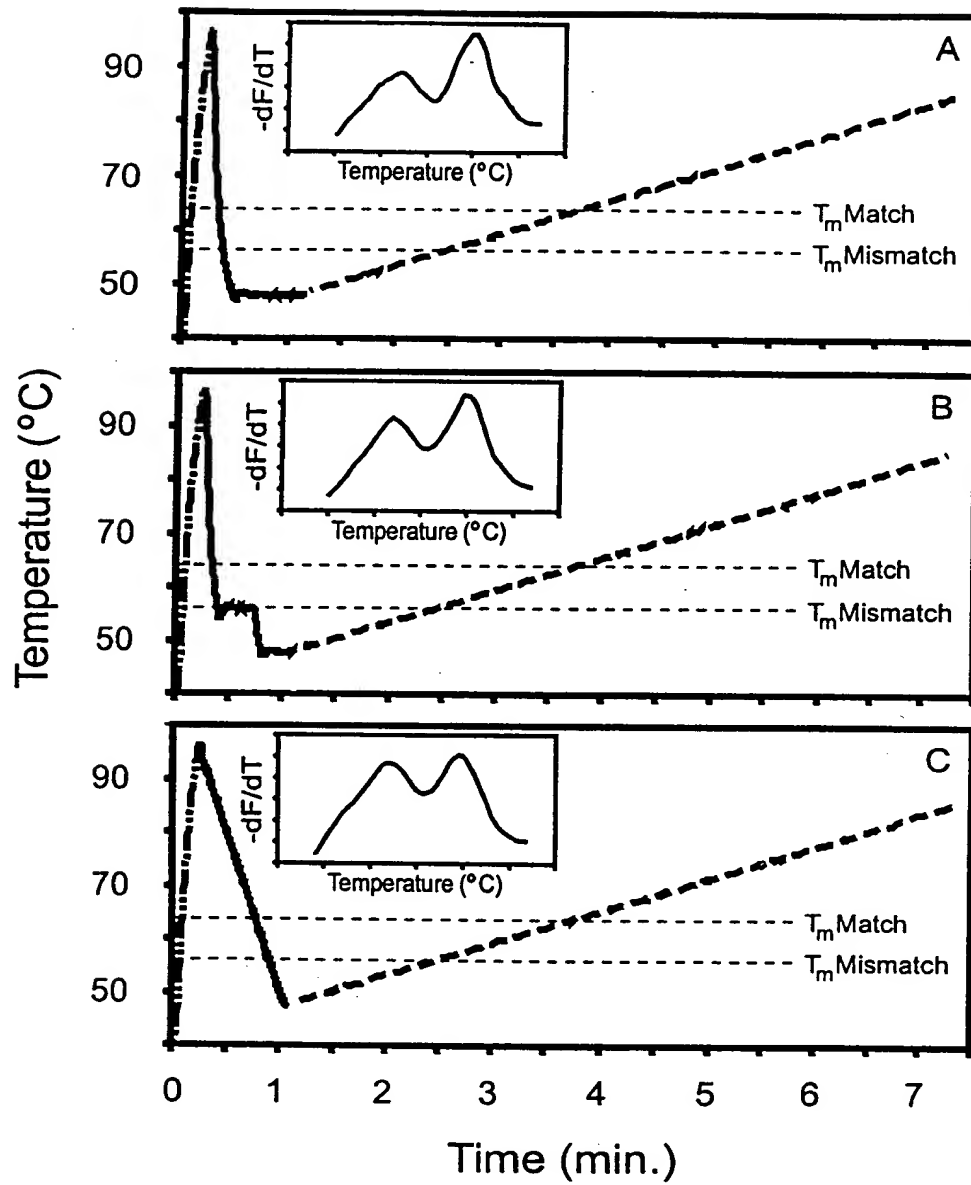


Figure 11.

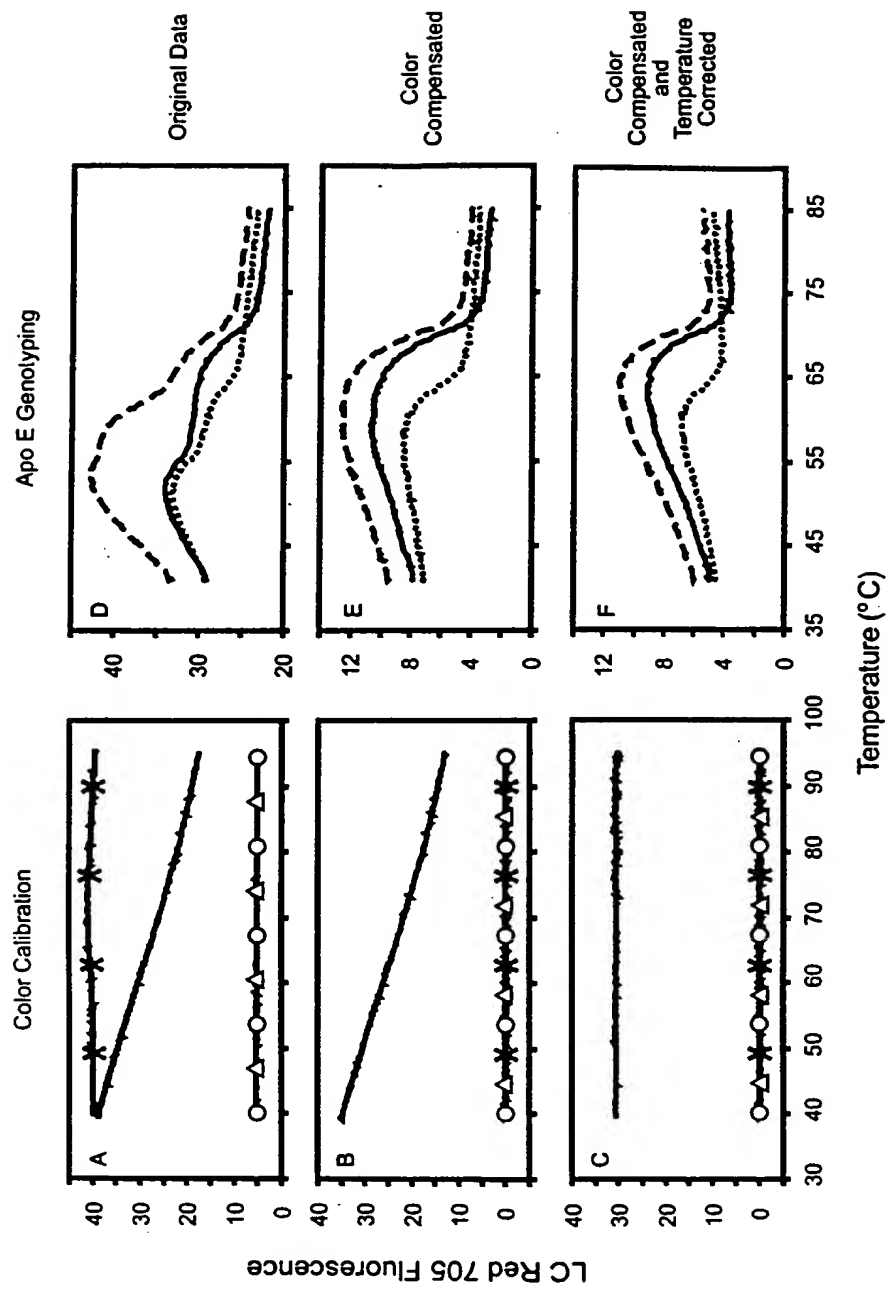


Figure 12.

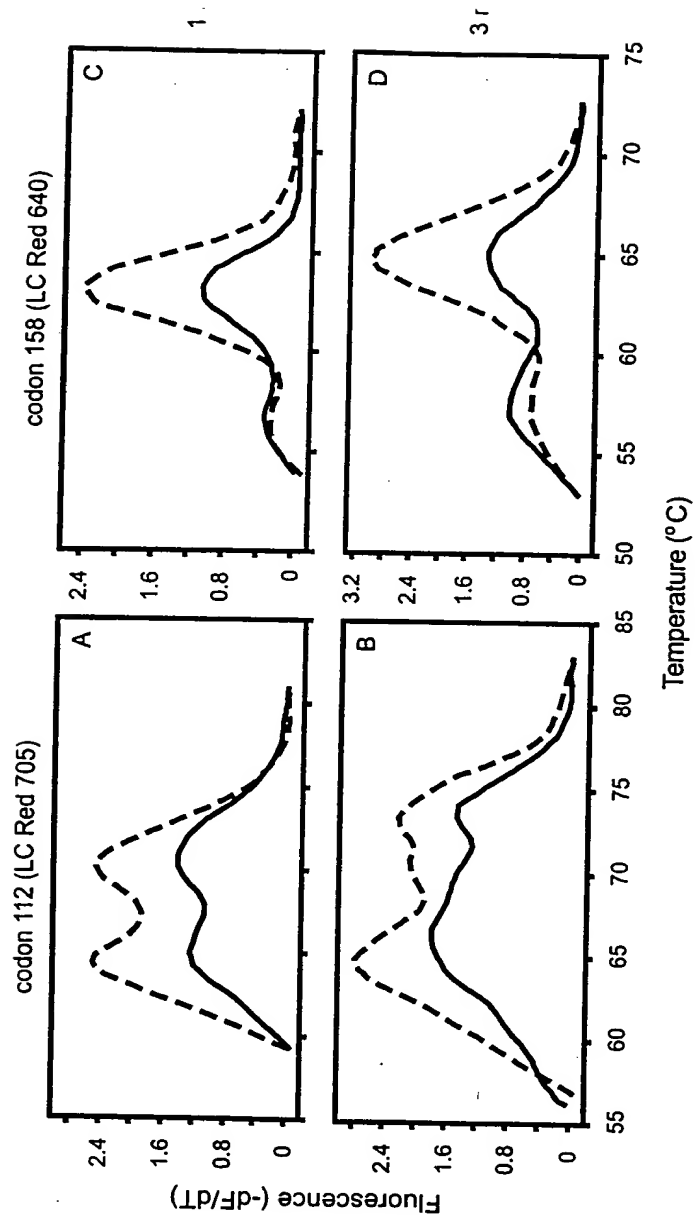


Figure 13.

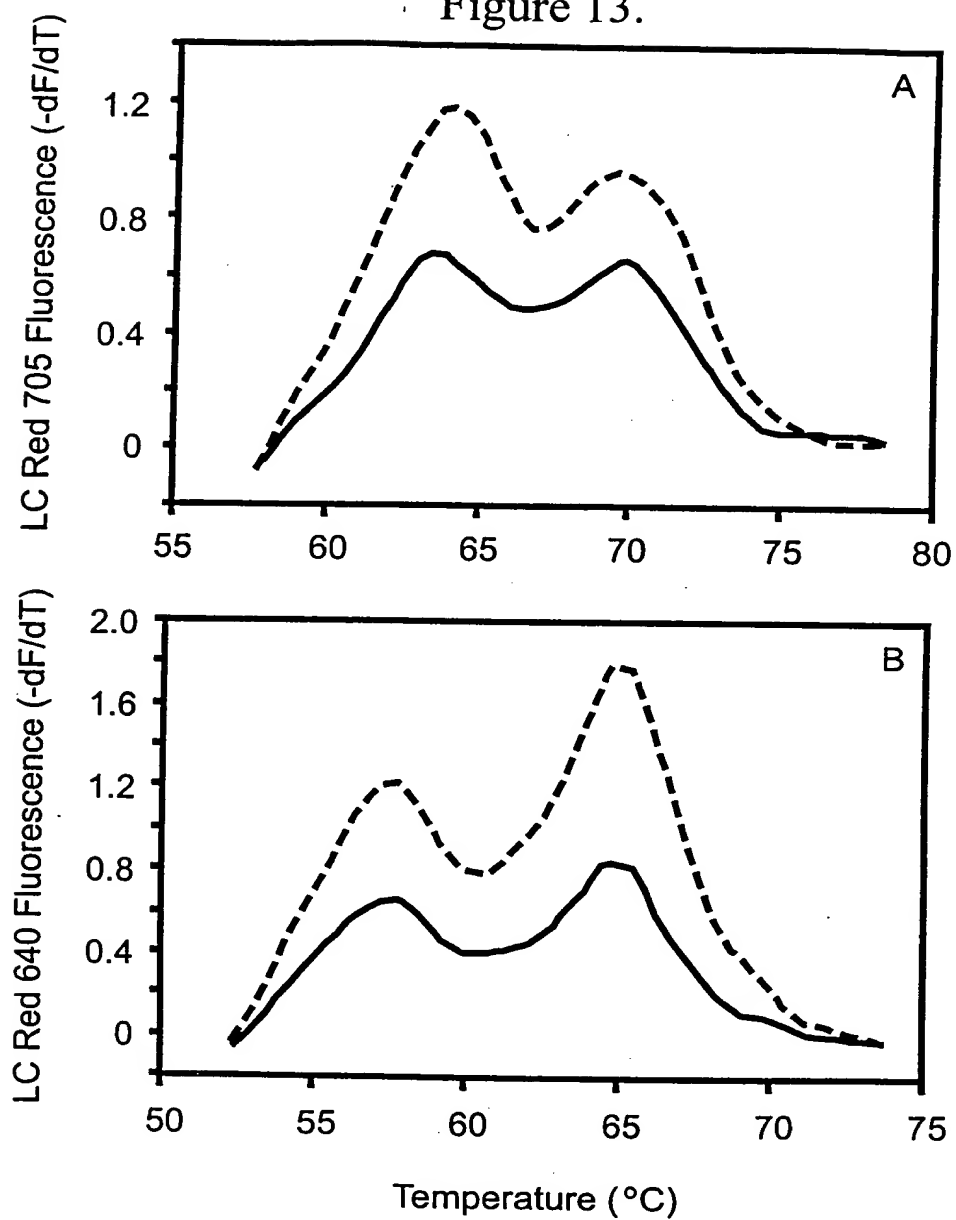


Figure 14.

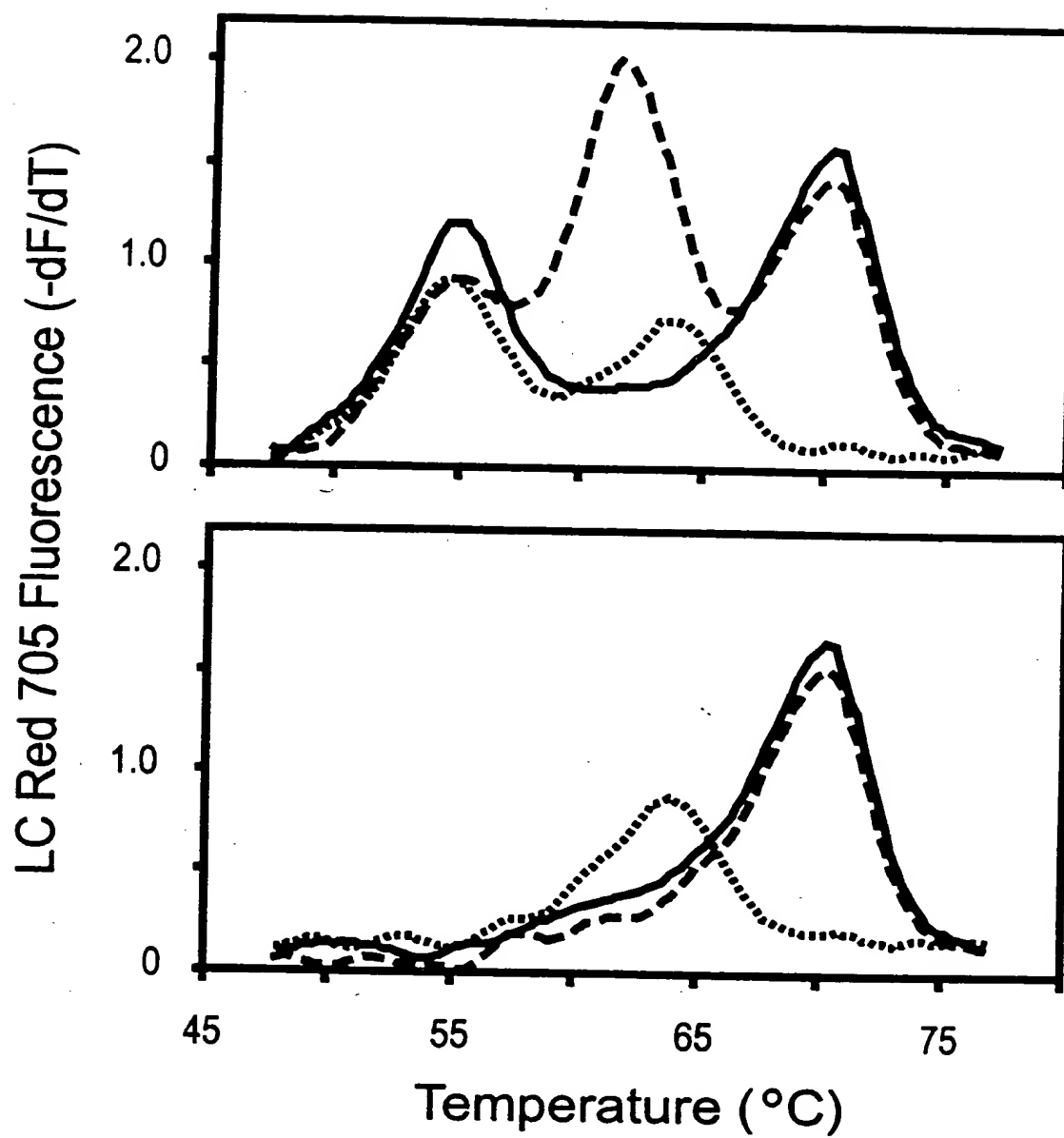


Figure 15.

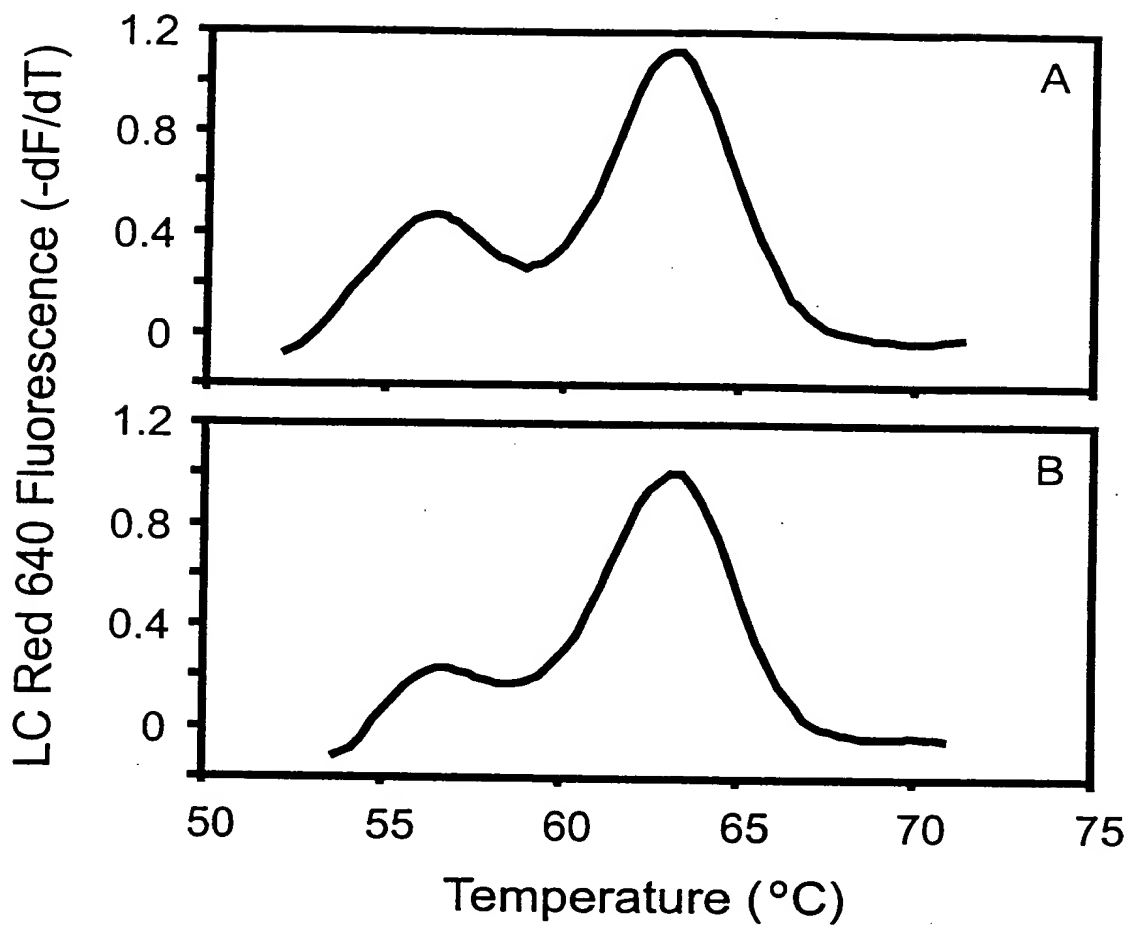


Figure 16.

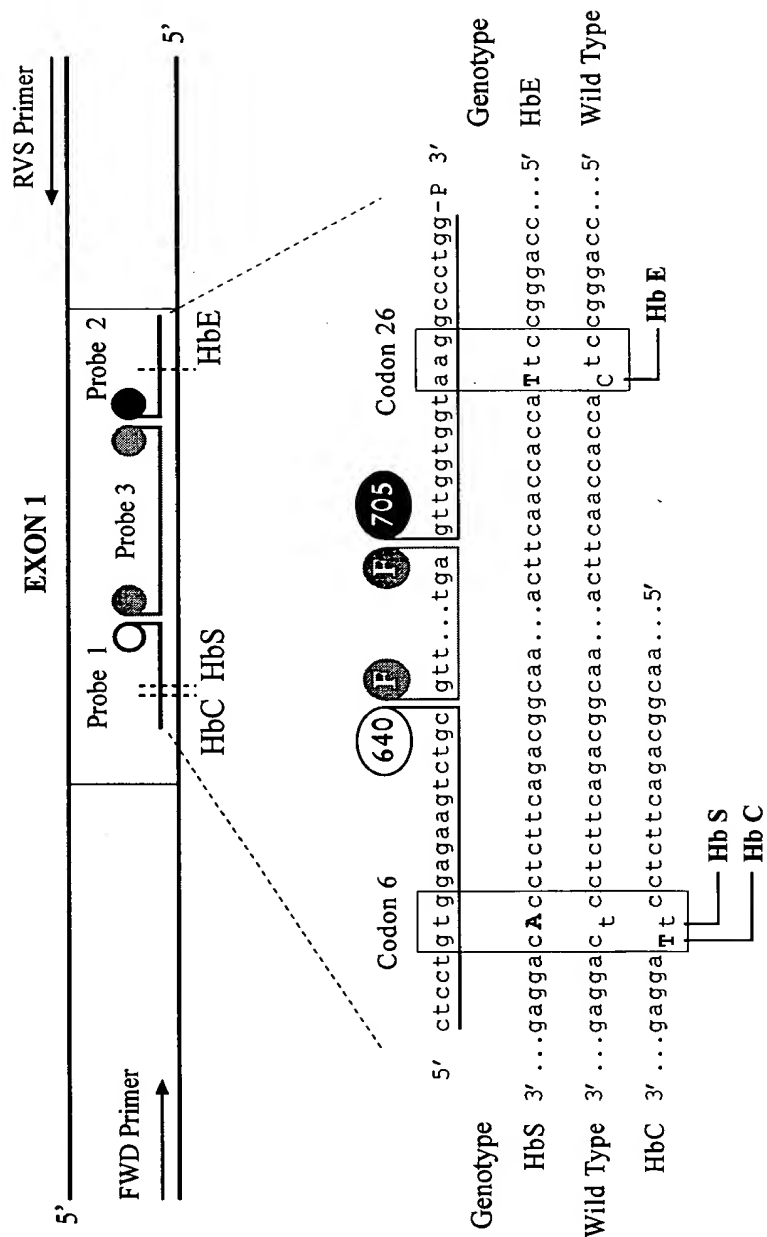
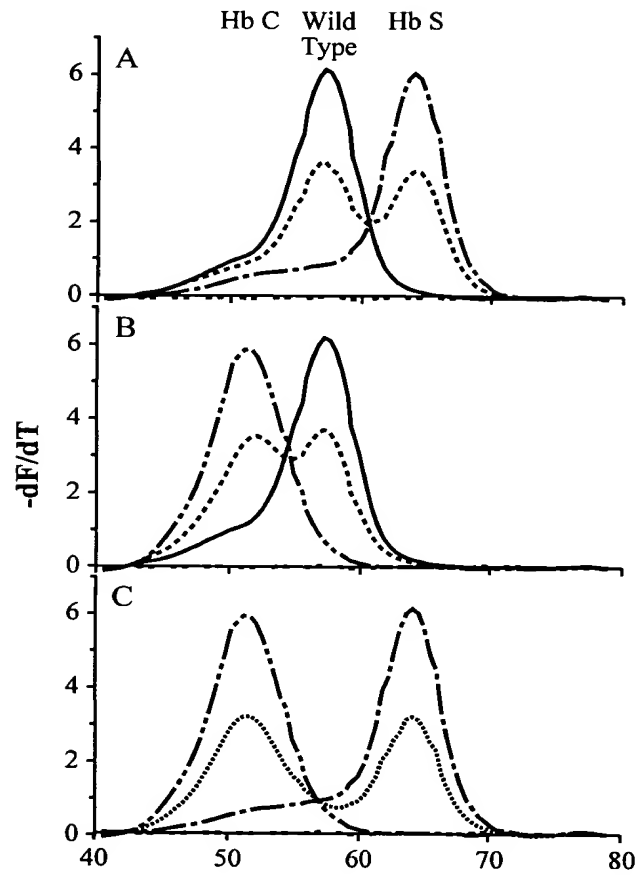


Figure 17.

Codon 6 Probe (LC Red 640)



Codon 26 Probe (LC Red 705)

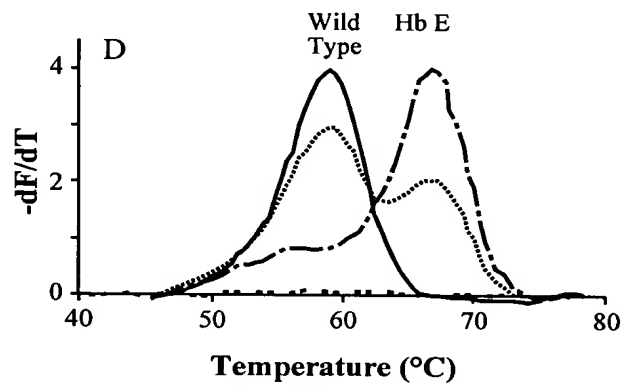


Figure 19. Predicted Tms for 2 Probes at a HLA-A Variable Region

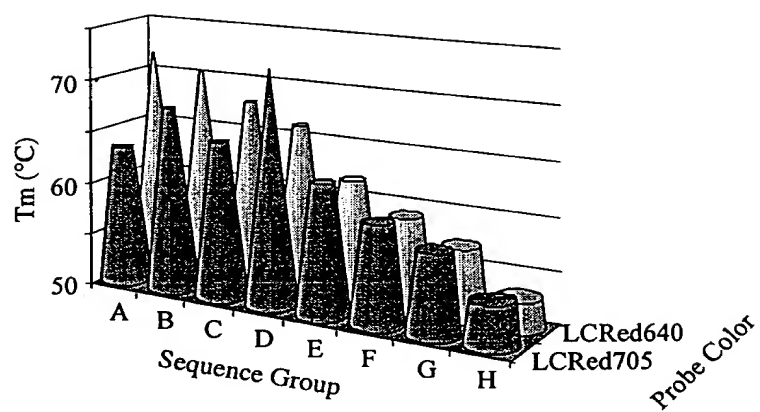


Figure 20. Sequence Variation and Probe Design at DRB1

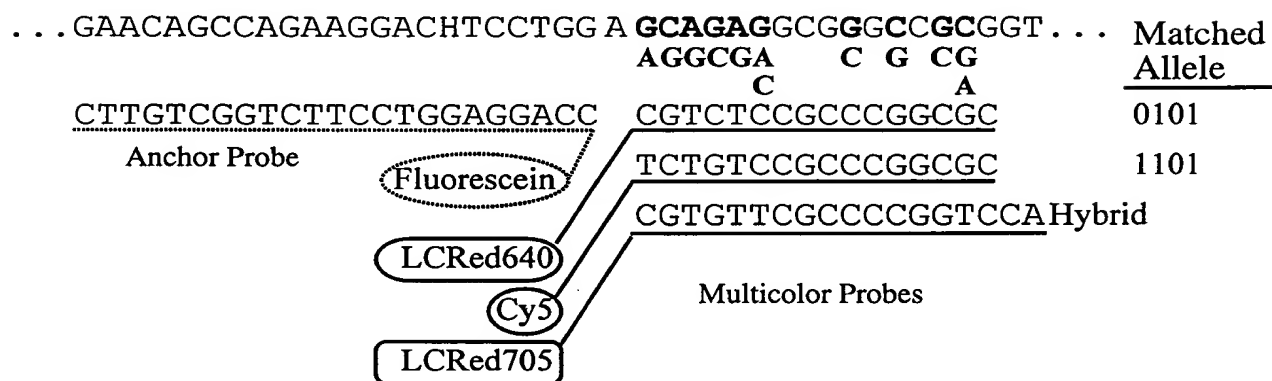


Figure 21. Predicted Tms for 3 Probes at a HLA DRB1 Variable Region

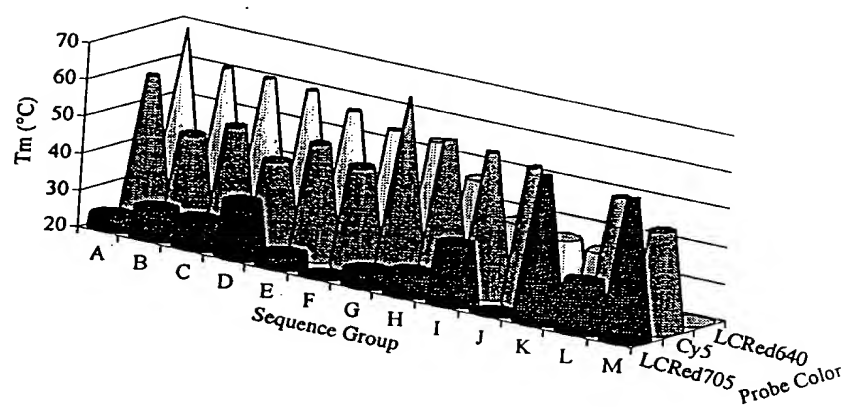


Figure 22. Scanning for Mutations

